We Claim:

1. A method for gray value correction of binary image data with a local grey value by a desired correction magnitude, which comprises:

quantizing the binary image data is with n bits;

filtering the quantized image data with a low-pass filter having a filter window smaller than a screen cell; and

obtaining corrected quantized image data from the filtered image data with a threshold value operation.

2. The method according to claim 1, which further comprises providing the low-pass filter with an asymmetrical distribution of filter coefficients with respect to the filter window.

3. The method according to claim 1, which further comprises asymmetrically distributing the filter coefficients of the low-pass filter with respect to the filter window.

4. The method according to claim 2, which further comprises obtaining the asymmetrical distribution of the filter coefficients from a symmetrical filter by shifting a filter function by fractions of an image point.

5. The method according to claim 3, which further comprises obtaining the asymmetrical distribution of the filter coefficients from a symmetrical filter by shifting a filter function by fractions of an image point.

6. The method according to claim 1, which further comprises carrying out the threshold value operation with a threshold value selected as a function of the local gray value and of the desired correction magnitude.

7. The method according to claim 6, which further comprises storing threshold values in a threshold value table.

8. The method according to claim 1, which further comprises:

carrying out the threshold value operation with threshold values selected as a function of the local gray value and of the desired correction magnitude; and

storing the threshold values in a threshold value table.

9. The method according to claim 6, which further comprises determining a threshold value function T1 = f1(G,dG) empirically based upon model screen dots and obtaining a

threshold value function T2 = f2(G,dG) therefrom with approximation functions.

10. The method according to claim 7, which further comprises determining a threshold value function T1 = f1(G,dG) empirically based upon model screen dots and obtaining a threshold value function T2 = f2(G,dG) therefrom with approximation functions.

11. The method according to claim 8, which further comprises determining a threshold value function T1 = f1(G,dG) empirically based upon model screen dots and obtaining a threshold value function T2 = f2(G,dG) therefrom with approximation functions.

12. The method according to claim 1, which further comprises obtaining corrected binary image data from the corrected quantized image data by quantization with 1 bit.

13. The method according to claim 1, which further comprises quantizing the corrected quantized image data with 1 bit to obtain corrected binary image data.

14. A method for gray value correction of screened image data with a local grey value by a desired correction magnitude, which comprises:

quantizing the binary image data is with n bits;

filtering the quantized image data with a low-pass filter having a filter window smaller than a screen cell; and

performing a threshold value operation to obtain corrected quantized image data from the filtered image data.

15. The method according to claim 14, which further comprises asymmetrically distributing the filter coefficients of the low-pass filter with respect to the filter window.

16. The method according to claim 15, which further comprises obtaining the asymmetrical distribution of the filter coefficients from a symmetrical filter by shifting a filter function by fractions of an image point.

17. The method according to claim 14, which further comprises carrying out the threshold value operation with a threshold value selected as a function of the local gray value and of the desired correction magnitude.

18. The method according to claim 17, which further comprises storing threshold values in a threshold value table.

19. The method according to claim 17, which further comprises determining a threshold value function T1 = f1(G,dG) empirically based upon model screen dots and obtaining a threshold value function T2 = f2(G,dG) therefrom with approximation functions.

20. The method according to claim 18, which further comprises determining a threshold value function T1 = f1(G,dG) empirically based upon model screen dots and obtaining a threshold value function T2 = f2(G,dG) therefrom with approximation functions.

21. The method according to claim 14, which further comprises quantizing the corrected quantized image data with 1 bit to obtain corrected binary image data.